
Call-Back Queuing to Conventional Mains

The Call-Back Queuing to Conventional Mains (CBQCM) feature enables call originators at a Conventional Main to access the CBQ feature at a Node.

Call-Back Queuing to Conventional Mains eligibility

When a station at a Conventional Main originates a network call through a Node, the NCOS assigned to the incoming trunk group is used to determine the CBQCM eligibility. This NCOS, as well as the incoming trunk group, must be defined as CBQ eligible.

Note: If the call originates from an Electronic Tie Network (ETN) switch, the Traveling Class Mark (TCM) transmitted to the Node by the ETN switch must be compatible with a CBQ-eligible Facility Restriction Level (FRL) at the serving Node.

The Call-Back Queuing to Conventional Mains offer

The CBQCM offer to a call originator at a Conventional Main consists of an optional recorded announcement, followed by a special (interrupted) dial tone. (The announcement and tones are provided from the Node.) To accept the CBQCM offer, the call originator dials the extension number associated with the telephone that is being used for the call. When the last digit of the extension number is dialed, a confirmation tone (three 256 millisecond bursts of dial tone) is sent from the Node to the call originator. The call is placed in the CBQ at the Node when the call originator goes on-hook.

The CBQCM offer can be refused by going on-hook any time before the last digit of the extension number is dialed or by remaining off-hook for longer than 30 seconds after receipt of the confirmation tone. If the CBQCM is neither accepted nor rejected within 30 seconds, the caller is given overflow tone (from the Node) and the call is disconnected.

Call-Back Queuing to Conventional Mains call-back

When an outgoing trunk becomes available at the Node, it is seized, and slow outpulsing is started. The Node then seizes a tie trunk to the Conventional Main and outpulses the extension number of the call originator. The call originator must answer the call-back before slow outpulsing is completed; otherwise, the callback is canceled and the outgoing trunk is released.

Note: If no tie trunks are currently available to the Conventional Main, the Node releases the outgoing trunk. The CBQCM call retains its position in the queue but is not offered another outgoing trunk until a tie trunk to the Conventional Main becomes available.

When the call originator answers the CBQCM call-back, answer supervision must be transmitted from the Conventional Main to the Node. Upon receipt of answer supervision from the Conventional Main, the Node transmits a tone (three 256 millisecond bursts of dial tone) to notify the call originator that the call is a CBQCM call-back, and completes the call.

If the call originator's station is busy, or the originator does not answer when the call-back is placed, the Node places the call in a suspended state for 5 min. After 5 min, another call-back is attempted if the outgoing trunk is free. If the station that originated the call is still busy or does not answer, the Node cancels the call.

No provision is made for CBQCM cancellation by a call originator at a Conventional Main. Once the CBQCM offer is accepted, the call remains in the queue until the Node initiates a call-back.

CBQCM traffic measurements

Traffic measurement data that is related to usage of the CBQCM feature is accumulated at the Node. This data then becomes part of the Incoming Trunk Group Measurements (TFN003). The data reflects on an incoming trunk group basis the number of the CBQCM offers and acceptances, the average time in CBQCM, the number of blocked CBQCM call-backs, and the number of CBQCM call-backs not answered.

Feature limitations

Station users at Conventional Mains cannot activate RGA to refuse expensive routes after the ERWT is given.

The Node seizes the same tie trunk group that was used to initiate the CBQCM for the CBQCM call-back. Thus, these trunk groups must be two-way (incoming/outgoing).

Conventional Mains must provide answer supervision on tie trunks connected to the Node. These switches must also permit transmission or repetition of station dial pulses for CBQCM operation. This feature cannot be used with systems that operate in senderized mode. Operation may require adjustment of the interdigit timeout on systems that employ simulated cut-through operation.

Conventional Mains must not allow CBQCM call-back calls to be modified by Call Transfer or Call Forward. Such call modification can result in the tie line not being released upon call completion.

The station user at a Conventional Main must dial the internal DN of his or her station to accept a CBQCM offering, rather than the CDPDN, if the Node is equipped for the Coordinated Dialing Plan.

Tie trunk groups that are used to provide CBQCM to a Conventional Main cannot be arranged for loop-start dial-repeating signaling and cannot have joint far-end disconnect control, as these arrangements do not allow the call to be disconnected after a CBQCM call-back.

Because tones and recorded announcements for CBQCM are provided by the Node, traffic loads on these facilities at the Node must be considered when Nodes are being engineered.